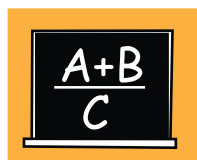


Functional Independence

Sample Assessment Booklet

Updated 10/21/05

Mathematics



Grade 8

Introduction

The *Grade 8 Mathematics Functional Independence Sample Assessment Booklet* has been developed to provide teachers, administrators, parents, students, and other interested stakeholders with a sample of the content and length of the assessment. Additional *Mathematics Functional Independence Sample Assessment Booklets* are available in grades 3, 5, and 11. The *Sample Assessment Booklets* can be downloaded from the MI-Access Web page at www.mi.gov/mi-access.

The table below indicates the number of core items and possible points on the *Grade 8 Functional Independence Mathematics Assessment*, as well as the number of pilot items that will be embedded in the assessment. A student's overall performance score will be based only on his or her performance on the core items. Data will be collected about student performance on the embedded pilot items, but they will **not** count toward a student's overall performance score. A portion of the core items will be released electronically each year. The embedded items will be used to replace the released items in future assessment booklets.

Mathematics Strand	Number of Core Items
Numbers and Operations	17
Algebraic Operations and Analytical Thinking	2
Measurement	10
Geometry	3
Data and Probability	3
TOTAL CORE ITEMS/POINTS	35
EMBEDDED ITEMS	10 (Numbers vary by strand and topic)
TOTAL ITEMS	45

The *Grade 8 Functional Independence Mathematics Sample Assessment Booklet* reflects the content and length of the operational assessment, which will be administered for the first time in fall 2005. Placeholders for embedded pilot items have been designated in the *Sample Assessment Booklet* (items 36-45). Please note that the positions of the embedded pilot item placeholders have been determined solely for the ease and convenience of the users of the *Sample Assessment Booklet*. The placement of embedded pilot items in the operational assessment booklets will vary from year to year.

DIRECTIONS: Read each question. Choose the **BEST** answer for each question.

Additional Information:

- Please note that the *Functional Independence Mathematics Assessments* are based on the *Extended Grade Level Content Expectations (EGLCE)* and benchmarks (EB). The EGLCE or EB that each item in the booklet measures can be found on page 33.
- Braille versions of the assessment are available for the *Functional Independence Mathematics* operational assessments.
- For the *Functional Independence Mathematics Assessment*, a student may (1) use a calculator, and (2) have certain assessment item stems and certain answer choices read aloud, if the Individualized Education Program Team determines these are appropriate assessment accommodations. Some item stems and answer choices must **NOT** be read aloud, such as where the question is, “What is the numeral for two?”, where one of the choices would be “2.” The operational manual has a table indicating which item stems and answer choices cannot be read aloud.
- Students may record their answers and perform their computations in the assessment booklet, so extra paper will not be necessary. Clear acetate rulers are provided for students to answer questions requiring measurement of length.
- Because of the population being assessed, there may be instances in which assessment administrators choose to use the actual items, such as coins, bills, and clocks, instead of relying on the pictures provided in the assessment booklet. However, the actual item may **NOT** change the nature of the question or elicit a different response.

- 1 Floyd's allowance changes each year by the same amount.

Floyd's Allowance

Year	Allowance
2000	\$5
2001	\$10
2002	\$15
2003	\$20
2004	?

According to the pattern, what is Floyd's allowance in 2004?

- A** \$25
- B** \$26
- C** \$30

2 Which number is read “three hundred three”?

A 300

B 330

C 303

3 Which is equal to 68?

A 6 tens plus 8 ones

B 8 tens plus 6 ones

C 6 plus 8

4 What does the 4 in the number 142 represent?

A 4

B 40

C 400

5 Nat drove from Michigan to Texas.

Which unit can be used to measure the distance she drove?

A miles

B pounds

C degrees

6 Which unit can be used to measure an animal's weight?

A gallons

B pounds

C inches

7 Which unit is used to measure volume?

A gallon

B pound

C feet

- 8 Mike needs to measure the length and width of his yard.

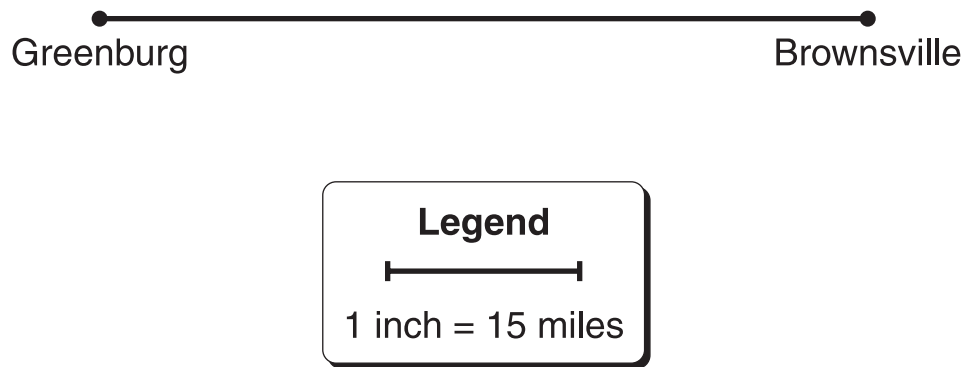
Which tool should Mike use to measure the length and width of his yard?

- A a measuring cup
 - B a scale
 - C a tape measure
-

- 9 Which temperature is **coldest**?

- A 15 °F
- B 45 °F
- C 65 °F

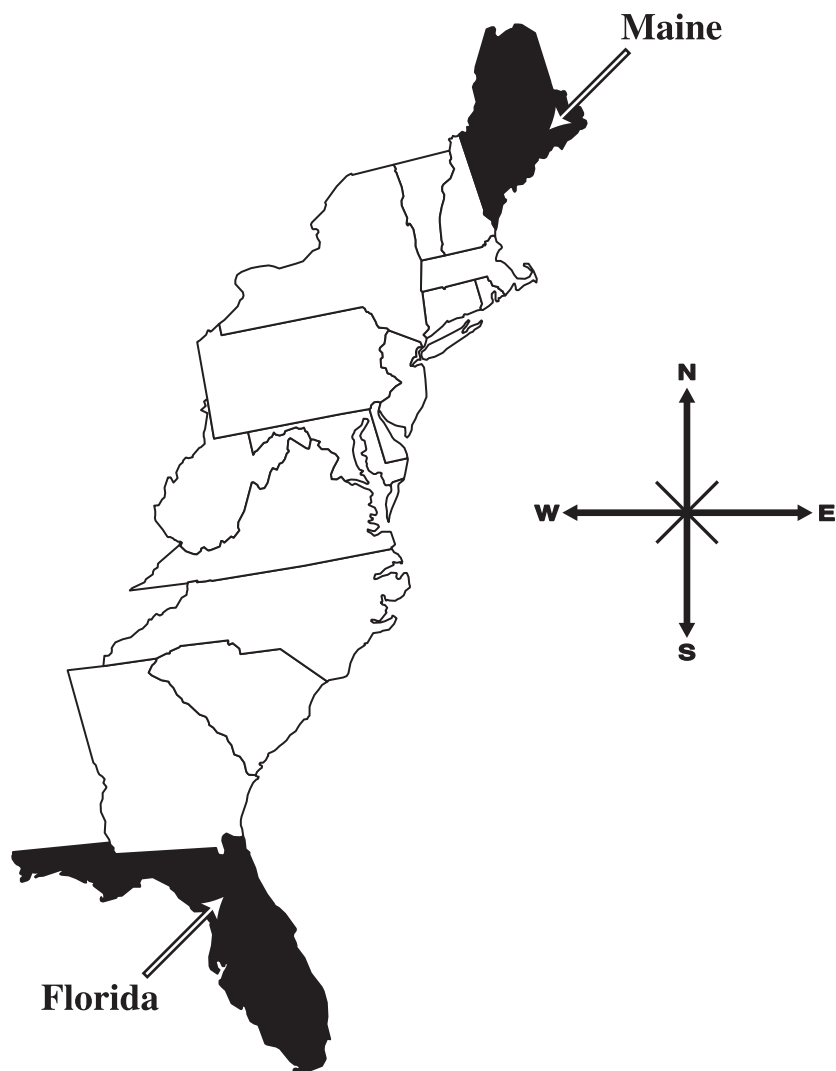
Use the figure below and the ruler to answer question **10**.



10 **About** how many miles apart are Greenburg and Brownsville?

- A** 4
- B** 30
- C** 60

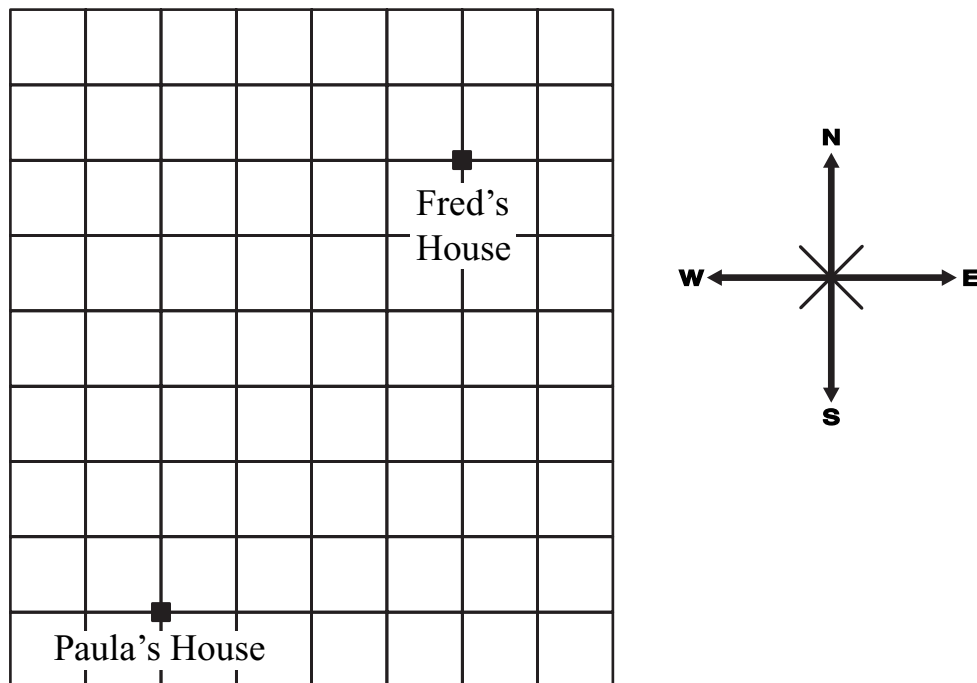
- 11** Walt is traveling from Maine to Florida.




In which general direction is he traveling?

- A** East
- B** South
- C** North

Use the figure below to answer question **12**.



SCALE: Each  is one block.

12 Which route should Paula use to walk from her house to Fred's house?

- A** Walk 6 blocks north, then 4 blocks east.
- B** Walk 3 blocks north, then 5 blocks east.
- C** Walk 4 blocks north, then 3 blocks east.

Use the figures below to answer question 13.



Screw 1



Screw 2



Screw 3

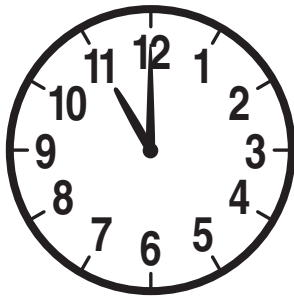
- 13** Jason is building a chest of drawers.

He needs to use screws that are about 1 inch long.

Which screw should he choose?

- A** Screw 1
- B** Screw 2
- C** Screw 3

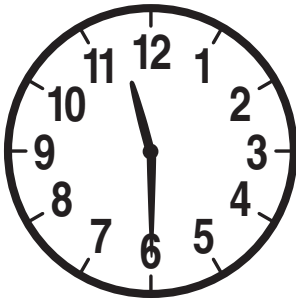
- 14** A bell rang at 11:00, 11:15, and 11:30.



If the pattern continues, what is the next time this bell will ring?

- A** 11:35
- B** 11:45
- C** 12:00

- 15** Yesterday Jason arrived at school at 11:30 A.M.



School was dismissed at 3:30 P.M.

How long was he in school?

- A** 3 hours
- B** 4 hours
- C** 5 hours

- 16** Sally was told that there were more than 650 fish in the aquarium tank.

Which number could be the number of fish in the tank?

A 590

B 642

C 690

-
- 17** Last summer Charles made \$429 mowing lawns in his neighborhood.

How much did he earn rounded to the nearest hundred dollars?

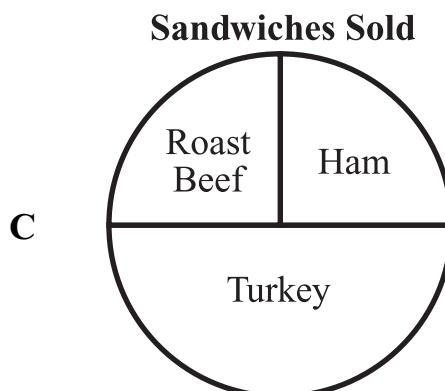
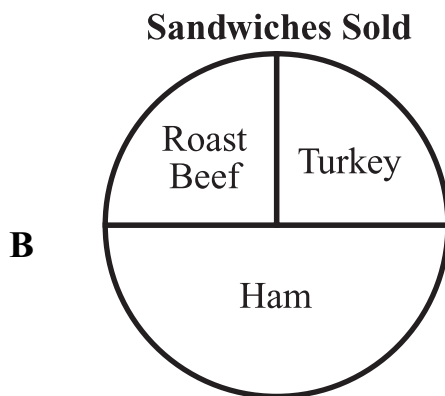
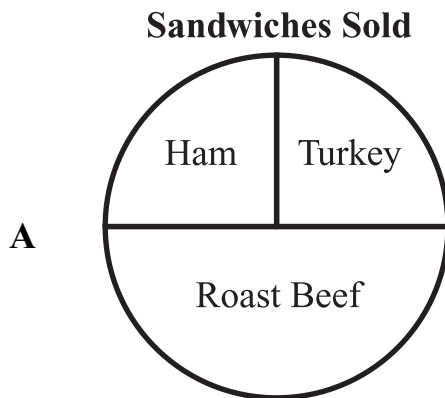
A \$500

B \$400

C \$300































- 18** Last month, 25% of the sandwiches Ralph sold were ham, 50% of the sandwiches were roast beef, and 25% of the sandwiches were turkey.


Which circle graph shows this data?



- 19 The table below shows the number of sandwiches sold at Sam's Sandwich Shop last week.

Sandwich Sales

Tuna	     
Ham	    
Turkey	         
Roast Beef	        

Each  is equal to 2 sandwiches sold.

How many turkey sandwiches were sold?

- A 10
- B 20
- C 24

- 20** The table below shows the number of sunny days last summer.

Sunny Days Last Summer

Month	Sunny Days
June	18
July	20
August	23

How many sunny days were there last summer?

- A** 18
- B** 38
- C** 61

- 21** John bought 7 red pens, 4 black pens, and 3 blue pens.

How many pens did he buy **altogether**?

A 7

B 11

C 14

-
- 22** Steve bought 3 red shorts, 4 blue shorts, and 5 yellow shorts.

How many shorts did Steve buy **in all**?

A 10

B 12

C 15

- 23** Each pie has 10 pieces.

How many pies do you need if you want 40 pieces?

A 2

B 3

C 4

-
- 24** Gil had \$10.

His father gave him \$23.

How much money does Gil have now?

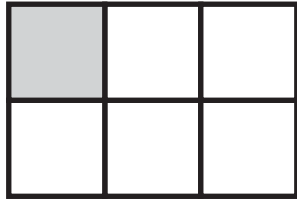
A \$13

B \$23

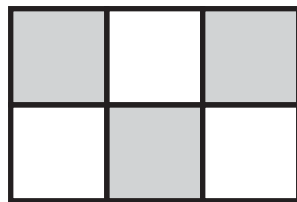
C \$33

- 25 Which of the three figures represents $\frac{1}{6}$?

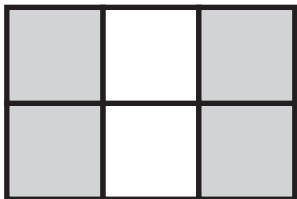
A



B



C



Use the figure below to answer question 26.



26 Which of these figures shows this strip cut into thirds?

A



B



C



- 27** Kim bought a book.

She gave the cashier a \$20 bill.

She got \$15 back.

How much was the book?

$$\text{\$20} - \boxed{} = \text{\$15}$$

A \$5

B \$30

C \$35

- 28** Sara has done $\frac{1}{2}$ of her homework problems.

John has done $\frac{1}{2}$ of his homework problems.

Who has finished the greater fraction of homework problems?

A John

B Sara

C They have done the same fraction of homework problems.

- 29** On Monday, Ryan ate $\frac{1}{4}$ of a pie.

On Tuesday, he ate another $\frac{1}{4}$ of the pie.

On Wednesday, he ate another $\frac{1}{4}$ of the pie.

How much of the pie did he eat **in all**?

A $\frac{1}{4}$

B $\frac{2}{4}$

C $\frac{3}{4}$

- 30** A CD player sells for \$100.

An ad says the CD player is on sale for $\frac{1}{2}$ price.

What is the price of the CD player?

A \$25

B \$50

C \$75

- 31** Debbie bought 4 of the same candy bars for \$1.00.

How much did each candy bar cost?

A 20¢

B 25¢

C 50¢

-
- 32** Pete earns \$5 per hour mowing lawns.

It takes Pete 3 hours to mow Mr. Brown's lawn.

How much money does Pete earn mowing Mr. Brown's lawn?

A \$5

B \$8

C \$15

- 33** Jack mowed Mrs. Howard's lawn in 3 hours.

She paid Jack \$18 for his work.

How much did Jack earn per hour?

A \$3

B \$6

C \$18

-
- 34** Abigail makes \$35.00 per week.

How much money will she earn in 8 weeks?

A \$140.00

B \$280.00

C \$460.00

35 For which statement would you use the expression $7 - 5$?

- A** Kim has 7 puppies and gives 5 away.
 - B** Kim has 7 puppies and is given 5 more.
 - C** Kim has 7 puppies and keeps them all.
-

36 EMBEDDED ITEM

- A**
- B**
- C**

37 EMBEDDED ITEM**A****B****C**

38 EMBEDDED ITEM**A****B****C**

39 EMBEDDED ITEM**A****B****C**

40 EMBEDDED ITEM**A****B****C**

41 EMBEDDED ITEM**A****B****C**

42 EMBEDDED ITEM**A****B****C**

43 EMBEDDED ITEM**A****B****C**

44 EMBEDDED ITEM**A****B****C**

45 EMBEDDED ITEM**A****B****C****Do Not Continue.**

Below is a list of the Extended Grade Level Content Expectations (EGLCE) that each item in this sample booklet measures.

Because the assessment will be administered during the *fall* of the school year, only content from the *previous* grade level will be measured on the assessment. Therefore, items eligible for the Grade 8 assessment will measure the Grade 7 EGLCE.

The references to EGLCE contained in this document can be found in the *Extended Grade Level Content Expectations*, which are available for review and download at www.mi.gov/mi-access.

Item Number	Strand	Domain	Topic	EGLCE
1	N	MR	1	06
2	N	ME	1	01
3	N	ME	1	02
4	N	ME	1	03
5	M	UN	1	02
6	M	UN	1	02
7	M	UN	1	02
8	M	UN	1	01
9	M	UN	1	03
10	G	LO	2	03
11	G	LO	2	03
12	G	LO	2	03
13	M	UN	1	04
14	M	PS	1	12
15	M	PS	1	12
16	N	ME	1	04
17	N	ME	1	05
18	D	RE	1	01
19	D	RE	1	01
20	D	RE	1	04
21	N	FL	2	09
22	N	FL	2	09
23	N	FL	2	13
24	M	PS	2	15
25	N	ME	3	15
26	N	ME	3	15

Item Number	Strand	Domain	Topic	EGLCE
27	M	PS	2	15
28	N	MR	3	17
29	N	ME	3	20
30	N	MR	3	21
31	N	MR	4	24
32	N	MR	4	25
33	N	MR	4	25
34	A	FO	1	01
35	A	FO	1	02
36	Embedded Placeholder			
37	Embedded Placeholder			
38	Embedded Placeholder			
39	Embedded Placeholder			
40	Embedded Placeholder			
41	Embedded Placeholder			
42	Embedded Placeholder			
43	Embedded Placeholder			
44	Embedded Placeholder			
45	Embedded Placeholder			



The Office of Educational
Assessment and Accountability
P.O. Box 30008
Lansing, Michigan 48909

Michigan State Board of Education

Mrs. Kathleen N. Straus
President

Mr. John C. Austin
Vice President

Mrs. Carolyn L. Curtin
Secretary

Mrs. Marianne Yared McGuire
Treasurer

Mrs. Nancy Danhof
NASBE Delegate

Mrs. Elizabeth W. Bauer
Board Member

Mr. Reginald M. Turner
Board Member

Mrs. Eileen L. Weiser
Board Member

Ex Officio

The Honorable Jennifer M. Granholm
Governor

Michael P. Flanagan
Superintendent of Public Instruction

FUNDED BY THE MICHIGAN DEPARTMENT OF EDUCATION AND THE U.S. EDUCATION DEPARTMENT.

STATEMENT OF COMPLIANCE WITH FEDERAL LAW

THE MICHIGAN DEPARTMENT OF EDUCATION COMPLIES WITH ALL FEDERAL LAWS AND REGULATIONS PROHIBITING
DISCRIMINATION, AND WITH ALL REQUIREMENTS AND REGULATIONS OF THE U.S. DEPARTMENT OF EDUCATION.

2003-2004 STATE BOARD OF EDUCATION STRATEGIC GOAL

ATTAIN SUBSTANTIAL AND MEANINGFUL IMPROVEMENT IN ACADEMIC ACHIEVEMENT FOR ALL STUDENTS/CHILDREN WITH
PRIMARY EMPHASIS ON HIGH PRIORITY SCHOOLS AND STUDENTS.

Revised October 23, 2003